

Upper Susquehanna Conservation Alliance

November 30, 2016

Meeting Highlights

Objectives of the meeting:

1. To update all USCA members on progress each work group has made since the last meeting in September 2015.
2. To identify priority projects, partners, funding, and outreach needs for 2017 and 2018.
3. To provide opportunities for discussion in your respective groups and to report out on priorities and partners identified, as well as what you can contribute for the upcoming year.

Welcome and Introductions – David Stillwell:

In the past year, members of the USCA have been represented at several meetings involving discussion on recreation, cultural issues, water quality and quantity, natural resource issues – the full gamut we are working on. For example, David is on the advisory board for Envision the Susquehanna, and attended the Heartland Coalition meeting where they are doing great research, while other USCA folks gave presentations at the Watershed Alliance meeting, focusing on the Upper Susquehanna.

The USCA is very diverse because of the types of organizations involved. The more bonds we build will make it easier to establish more connections, and provide more opportunities. We are very nimble and we are able to form new work groups focusing on other issues, more than the seven we already have. Connecting with the public is important to engage them and it is something on which we can build. What additional resources or projects do we need?

Please make the USCA aware of any funding opportunities and mention the USCA when looking for funding. Sometimes it helps funding sources to know that there is buy-in from a larger group. As we all know, it takes effort to keep things going and to keep things relevant. Invite friends, colleagues to join the USCA which is an open forum to get things done, that has been self-forming.

Regional Updates:

Update 1 – Roadside Ditch Management Program: presented by Rebecca Schneider – Associate Professor, Atkinson Center for Sustainable Futures at Cornell University.

The Chesapeake Bay Program wanted to develop a program/workshop describing effects of roadside ditches. In New York State, roadside ditches are managed by the various highway departments whose focus is on the road. Goals of the program include: (1) increase awareness of the problem with roadside ditches; (2) get up to speed on how they are managed; and (3) come up with recommendations with a focus on TMDLs.

The take-home message is that roadside ditches have had a large impact on flooding, groundwater, streambank erosion, and polluting drinking water supplies. They act as conduit for streams and sediment. Some states scrape their ditches and don't revegetate. Current research is looking at impacts of nitrogen from farms into roadside ditches. Management would entail BMPs to control roadwater runoff. Hydroseeding is a no-brainer and a simple thing that could reduce a lot of sediment transport. The challenges include: (1) a lack of communication; (2) conflicts on practices up- and downstream; (3) ditches are not mapped; (4) the public controls the right-of-way, but that is a conflicting policy among states; (5) need support; and (6) climate change is exacerbating the problem.

Successful programs in other states include Lake Champlain in Vermont. The first thing that needs to be done is to map the ditches and where they go. Municipalities need to get on board and work together including educating private citizens and providing good leadership.

Recommendations and needs –

1. Watershed-wide program
2. Geographically comprehensive
3. Address diversity of government structure
4. There is a full suite of strategies, but cannot do it piecemeal. Need a comprehensive campaign – education, regulatory incentives, and deterrents, funding – for the entire system
5. Education and outreach program to target all the stakeholders – highway, policy makers, landowners.
6. Develop comprehensive Best Management Practices (BMP) guidelines using case studies available on the internet. Lake George is a good example.
7. Need overarching representatives from all areas and an organizational structure to provide guidance.
8. Grant-writing – how to move it forward with the Upper Susquehanna. How to coordinate?

9. More research needs to be done. Nitrogen moving through ditches is now being looked at. Wood chip nitrogen filters are being used in the Midwest. Erosion where the ditches enter. How much flooding could we reduce?

Chesapeake Bay Program sent official letter buying into the road ditch program. They identified three follow-up actions recommended by their management board – (1) support pilot ditch mapping effort; (2) determine if nutrient and sediments credits can be derived from existing reports (TMDL credits), and (3) encourage further studies of impacts.

Questions/Comments for Rebecca:

Comment: Jim Curatolo commented that the Upper Susquehanna Coalition (USC) has been working on roadside ditches forever and the ditches changed the hydrology of the Susquehanna. We need to implement what we know now about roadside ditches. Mike Lovegreen has worked with USC educational outreach. Pennsylvania has \$3 million to take care of roadside ditches, which is provided from local Soil and Water Conservation Districts (SWCD) to local highway departments. New York State needs to provide this money also.

Outcome: Great progress has been made – what can we do as a group to help on this issue? Landscape, outreach, flood working groups all touch on this issue. USC builds biofilters to help capture nutrients and sediment. Infrastructure in place through USC to implement the BMPs. We need to bring in and pull all the pieces together and perhaps form another group. Education still needs to be done. How much funding and where is it needed?

Comment: Mike Lovegreen added that not all the work gets the credit as Chesapeake model is not user-friendly. Sediment goal for phosphorus is met and nitrogen is nearly met.

Outcome: Rebecca will work with USC folks to organize effort.

Update 2 - FLLT Conservation Strategy Plan – “Lakes, Farms, and Forests Forever”: Presented by Zach Odell of the Finger Lakes Land Trust (FLLT), Director of Land Protection.

Zach handed out the document, “Lakes, Farms, and Forests Forever, Ten Conservation Strategies for the Finger Lakes Region,” an accumulation of knowledge from partners across the region, released in October. Underpinned

by the regionalism, we have Adirondacks, Catskills; we need to define the Finger Lakes of New York State. FLLT directed regional services and funding toward economic growth, open space, and outdoor recreation. This is a conservation agenda not a plan – as this is a summation of what work could be done.

Top 10 Strategies –

Three themes, ten strategies identified

Funding tools to direct attention for the Finger Lakes area.

\$100M for the next 10 years.

Some funds are softballs to direct grants toward certain programs – not a comprehensive list.

1. Protect lakes, streams and create new wetlands.
2. More access.
3. Syracuse drinking water supply.
4. Saving farms, wineries, and rural character.
5. Scenic byways.
6. Land use planning to maintain rural character. Assist towns to implement plans.
7. Open space projects – Canandaigua skyline trail, emerald necklace, Chemung River greenbelt, southern end of Skaneateles Lake. Get state to invest and to highlight what we have.

FLLT protected 500 acres last year. Otsego Land Trust protected 1,930 acres last year. Need to work together on sharing expertise to accomplish goals. FLLT working with NYSDEC, Forest Service, USDA, and others to help with outreach to landowners to get conservation projects on private lands. Zach's goal is to meet with lots of folks over the coming year. Have shovel-ready projects when funding becomes available. Concentrate money from the state to the municipalities. FLLT putting together project to identify scenic vistas of Cayuga Lake for future funding opportunities. Can work with towns to help get the conservation projects done.

Update 3 - Opportunities for mitigation in a regulatory context (potential funding):
Presented by Tim Sullivan, FWS biologist.

FWS looks for avoidance and minimization of resources first jumping right to mitigation. Regulatory agencies ask for mitigation. The project sponsor gives the mitigation. Mitigation has to be long-term for the life of the project and appropriate for the amount of wetland impact, scale, and quality of the resource

being impacted. Often the mitigation is watershed-based to offset unavoidable impacts before they occur.

FWS Mitigation Policy was written in 1981, revised November 2016, now considers compensatory mitigation for ESA listed species. The 1981 policy did not consider compensatory mitigation acceptable in that permits were needed for take of listed species. 2015 Presidential Memorandum for no-net loss or net benefit. Looking at more of a landscape-scale approach to mitigation – GIS analysis, land-use/management plans, agency goals, and stakeholder input.

Corps website that tracks in-lieu fee and bank information (See RIBITS weblink – https://ribits.usace.army.mil/ribits_apex/f?p=107:2). Provides information on why the bank was established and what resources are supposed to be compensated at the site.

Wetland banks – create and restore habitat before impacts occur, then sell credits to those who impact wetlands, regulated under the Clean Water Act, and establishes a process and banking industry. Fort Drum is an example of wetland mitigation bank. The Wetland Trust (TWT) develop the most recent and unique bank to develop an inland salt marsh in central New York. Wetland banks are a for-profit business. In-lieu fee can be run by non-governmental organizations (NGOs), and local and state agencies have slightly different rules than banks. The project sponsor can collect money first and then develop project within 3 years. The in-lieu fee has 18 service areas. Ducks Unlimited and TWT have in-lieu fee service areas. TWT will have mitigation sites in the subwatersheds of the Upper Susquehanna in New York. Have 3 years to start projects.

Conservation Banks – similar to wetland banks, but for species. New in the eastern part of the US. There are 161 conservation banks in the US covering 45,000 acres. Very popular in California. Mussels, fish, plants, mammals, birds, herps, etc. Protect a unique habitat that has species using the site. Banker will sell credits to project sponsor whose project would impact a listed species. Banks are being developed for the Indiana and northern long-eared bats in northeast states, with talk of developing a bat bank in NY now.

Questions/Comments for Tim:

Comment: Jim Curatolo added that in-lieu service areas are very rigorous to develop and get it done, but it's the only way to permanently protect sites. Sell credits and do the restoration; for every credit sold, TWT buys 10 acres of high

quality wetland. New York is the only state that does this. Banking is different and is for-profit, a plan to make a lot of money and spend it on projects. Looking at big initiatives...biggest turtle bank in US in Hudson Valley Area – bog turtle and Blanding's turtles, buy more land and work with local organizations to help get this done. Hudson area is regular mitigation bank, but will be used for areas with bog turtles, etc. No need to wait for impact to happen. Generates funds for long-term planning. USC has already mapped wetlands throughout NY. \$91,000 per credit. TWT owns about 1,500 acres under protection now.

Comment: Kim Farrell with NRCS is working in Hudson Valley on bog turtle sites already. On the National level, Working Lands for Wildlife (WLFW) is rolling out a turtle initiative for four turtle species. Regional Conservation Partnership Program (RCPP) - apply for funds within program to do conservation activities. WLFW is looking to RCPP program for turtle projects.

FWS is working on species before they get listed. This may preclude the need to list these species. Already working with NRCS on these things, especially for the turtles.

Use USCA to identify areas to do work and identify projects ready to go. ID partners to work with.

Work Group Breakout Sessions:

Hellbender Work Group

Priorities: Work to bring back population levels in the Upper Susquehanna basin – Collecting eggs in PA to put in NY streams, continuing research and progress

Funding Needs: \$14,400; \$16,100 required

Accomplishments: Most of the \$\$ supporting a grad student at ESF rearing hellbenders and setting up the lab. 106 animals are waiting to go to the lab from Bronx Zoo. Work on sexing the animals from Buffalo State through genetic methods. eDNA from University of Buffalo to detect hellbenders through water samples to detect presence/absence in distribution – Almost completed and hope discuss the studies' progress.

Outreach Needs: TBD

Future projects: 4 further investigations –

1. Chytrid in the Susquehanna drainage. Two findings in the Chenango River found a dead hellbender that tested negative for chytrid fungus as per Cornell University. Where is chytrid fungus in the system and how does it impact?
2. Amy wants to genotype the animals from the Bronx Zoo to ID parentage.
3. Dead animal found in Chenango River – investigate for other animals.
4. Additional habitat restoration in the Susquehanna to complement existing projects that have funding.

Pearly Mussel Work Group

Priorities: There are data gaps, brook floater, elktoe genetics. Work with landowners to manage for wide vegetated stream buffers. Chemical pollutants – good riparian buffers help (Trees for Tribes). Further studies of aging and distribution, finding eel hosts in the watershed.

Funding Needed: Paul Lord would like approximately \$5,500 to study additional locations.

Outreach Needs: None identified at this time, TBD.

Accomplishments:

NYSDEC up first – Amy Mahar and Jenny Landry NYSDEC, Avon. Using a State Wildlife Grant - baseline inventory of freshwater mussels of central New York. 2014-2016 focusing on Tioga River basin and Chemung. 124 sites on 28 streams. 48% of streams had mussels, 13 species in the basins. 5 Species of Greatest Conservation Need (SGCN). Brook floater 8 miles of the Cohocton where no previous records. Eastern elliptio not found. A lot of work in the last 10 years have been done in the basin. Research and management – survey streams w/ data gaps. Genetic work done on brook and alto. Great to tease out the genetics and they may hybridize.

Pearly Mussel – SUNY Oneonta – research on reproduction on elliptio funded by USCA. Otego Creek surveys upstream with divers in April. Sex ratio – found higher males than females. Question raised Hermaphrodites study. Glochidia only suitable host is American Eel – no eels in watershed for them to latch onto. Water temperature can change glochidia release time.

Paul Lord – Funded project near SUNY Oneonta. 16 student divers (Hartwick, Cobleskill, and SUNY Oneonta) – aging the dead elliptio shells and age of the youngest live elliptio in the creek. Growth rings counted. Youngest animal was 46 years old. Correlates with the last siting of eels in 1992 in Cortland. Nice overlap of live vs. dead animals. Other locations that we want to look at; some already have good dead animals. Have found eels in Hartford north of Oneonta.

Future Projects: Introduce American Eel into the watershed? Further investigation from SUNY Oneonta study into Hermaphrodite pearly mussels. Additional locations to study elliptio – age at Otego, Sangerfield, Chenango, Unadilla, and Mud Creek.

Brook Trout Work Group

Priorities: Mitigate 3 more barriers in 2017 – working with town and county engineers for permit process. Need protection – 20% of streams are not protected. Need to get a sub-watershed where town supervisor is willing to do something different to re-plum ditches to mitigate effects on brook trout habitat. Threats include lack of regulatory protection because NYSDEC can't regulate non-trout streams unless there is a contaminant issue. Good news – Trees for Tribs in the watershed.

Funding Needed: TBD

Accomplishments: All four NYSDEC regions are at some level collecting brook trout in the watershed. Survey work is ongoing at a smaller level; drainage has been mapped. Region 4 is working with highway departments. Making good instream work done, bog turtle passage projects, barriers, etc. Ways to get some money to do that. Working closely with Region 7 Fisheries to mitigate barriers, Wiley Brook watershed, prioritizing watersheds, and identifying barriers. Mitigated one last year with a new culvert.

Outreach Needs: NYSDEC to share their maps with brook trout streams to include before/after pictures of project on USCA work group webpage. Use fact sheets on Trees for Tribs.

Future Projects: Couple of tribs still need to be surveyed.

Landscape Work Group

Priorities: Mapping landcover data as a planning tool – help identify habitat restoration projects (pond creation, buffer rehabilitation). Restore populations of bulrush through propagation efforts – will follow up this coming year (2nd year). Need to direct resources to priority sub-watersheds where projects are needed most – new USC tool can help with this.

Funding Needed: TBD

Outreach Needs: To make landcover data tool available to rest of USCA members.

Accomplishments:

Blueway Conservation Area (fee properties) restoration projects: Otsego Land Trust (OLT) has been working with the Upper Susquehanna Coalition on two restoration efforts. USC (Patrick Raney) drafted a Restoration Management Plan and work has begun on creating native grassland habitat and a few ponds in previously drained areas at Parslow Road Conservation Area on Oaks Creek. USC (Jeremy Waddell) has been working on a berm removal project at Brookwood Point on Otsego Lake.

Education Projects: OLT continues to fund two Biological Field Station Interns to conduct summer research projects on Blueway public access sites. This past summer OLT partnered with the Schoharie River Center to bring kids from local schools out on the Blueway properties and conservation easement properties to collect water quality samples from Oaks Creek, the Susquehanna River, and Decatur Creek.

Conservation Easements: In 2015, closed on 1,580 acres in Otsego, Herkimer, and Delaware counties (Carrs Creek watershed, Ouleout watershed, Otsquago watershed, and Cherry Valley creek watershed). So far this year, closed on 350 acres within the Susquehanna Watershed. Continuing to look at expanding service area outside of Otsego County and have been exploring enhancing our farmland projects efforts.

Berm removal project - Patrick Raney – wetland scientist – USC received \$2,606. Northeastern bulrush was presumed extirpated in NYS. Collected seeds from a robust population. USC propagated a total of 1,473 plants at SUNY-ESF and planted them last summer at a secure site. A third of the plants survived to one year and those had seedheads and recruitment of

more plants. The USC hosted the Pennsylvania Natural Heritage Program and the Pennsylvania Field Office of the U.S. Fish and Wildlife Service in the summer to view the plants.

USC (Patrick Raney) – developed a landcover tool to help identify habitat restoration projects, help farm adapt to a warmer climate with more precipitation. Department of Agriculture and Markets provided funding to study climate resilience and farms by the end of the calendar year. The USC's tool combines a number of BMPs into a single layer that farms can use, and then ranks them according to overall climate resiliency benefits. Four spatial components include – unvegetated steep slopes, also identifies wetland restoration and stream corridor restoration targets, lastly location of farm ponds and modeled their use on the landscape. Tool provides very fine-scale estimates of locations where specific project types could be implemented.

Future Projects: USC looking for support through existing funds to do follow-up for the second year since establishment of propagated bulrush. They have identified potential partnerships, including SUNY-ESF for genetics. OLT plans to continue to expand education program with biological interns into the Butternut watershed and expand partnerships with OCCA and the Biological Field Station. USC refining approach and providing training events to get their landcover tool into the hands of conservation partners – hope is to reduce flood severity and water quality problems downstream.

Fields to Young Forests Work Group

Priorities: Focus on getting projects on the ground. Working on state forest initiatives on state-owned lands – those areas could be demonstration areas. Outreach project.

Funding Needed: Projects cost \$200-4,000 / acre. Can cost share landowner up to 75% - need to cover that so site isn't lost if landowner doesn't have the funding.

Accomplishments: New members – Kim Farrell, and two NYSDEC folks to bring info and support. NYSDEC and Upper Susquehanna have three wildlife management areas that they've previously cut. Developed an outreach brochure for private landowners on Fields to Young Forests for NRCS, SWCD to disburse to private landowners.

Outreach Needs: Distribute outreach brochures to SWCD. Get the word out to private landowners to acquire more projects.

Future Projects: State land, state forests, state wildlife management areas for collaborative work to manage forest land for fields to young forests. Primary objective is to reach landowners about these young forest initiatives.

Flood Work Group

Priorities: Watershed communities – stream corridor assessments. Develop one corridor per watershed, equipment, training in culvert installation... Develop training at southern tier central or regional planning.

Funding Needed: TBD

Accomplishments:

USC (Mike Lovegreen) – conduct an assessment of the stream corridor using a stream corridor assessment guide. While conducting these assessments, they also assessed resources to address the NAC. Training of municipal officials to develop culvert training. Workshop in each of the 7 watersheds for officials.

NOAA (Jim Brewster) – New National water model Version 1.0 was released this summer allowing to produce 7.2 million hydrographs, all orders of streams. Version 1.0. website – water.noaa.gov. Outputs = Stream flow and stream flow relative to normal – alter communities ahead of time. River forecasts out to 10 days, and another for 30 days. FTP highest resolution 250 meters.

Janet Thigpen – ongoing goals and objectives – networking and outreach. Develop and deliver appropriate training. Identifying priority floodplains. Hoping to meet in January to prioritize riparian buffers. Outreach – FWS could help develop a brochure – small solutions for large results.

Outreach Needs: Develop and deliver appropriate training. FWS can help develop brochure – small solutions for large results – to benefit flooding issues.

Future Projects: Will have a January meeting on buffers. Identify wetlands and others for flood benefits. Proceed with culvert work and continue to support road ditch research and application. Coordinate with Rebecca Schneider to develop new work group?

Outreach Work Group

Justin Dalaba is now the Outreach Coordinator for the FWS and leader of this group.

Priorities: To improve communication, foster collaboration, work with USCA members to meet their needs. To highlight accomplishments of each work group and share updates with the rest of the USCA.

Projects: Continue to expand subpages of the USCA website. Develop an update form to send out to each work group for monthly updates from the field (with pictures) that can be shared with all USCA members to highlight accomplishments of that group. Use Facebook Page as a closed forum for discussion and resource sharing – keep the conversations going year-round.

Future goals: Need to relay information to the public. How to carry the message externally? Brochures/outreach materials, online blogs, and stories...

Partners: USCA and work groups.

Funding Needed: Dependent on outreach needs of the USCA.

Wrap Up and Action Items

Action Item: Potentially form a new work group - Roadside Ditches.

Action Item: To continue the conversations started during this meeting. Outreach group offered ways to keep people connected, David would like to have a spring meeting to follow-up on what was started.

Action Item: Many things we can get out to the public. Important to make connections with the landowners.

Meeting Wrap Up:

David added that some really important things can be done even with the small amount of funding. Where to go next? Is this useful? Pulse check survey on what works with people. What was useful, what wasn't useful? How can we continually exist? How do we make it relevant to meet your needs? Rebecca Schneider likes the updates from all the diverse groups. Kim Farrell seconded that.

Great that the working groups get together more often. We encourage a large group meeting to share everything and everyone. We would like two face-to-face meetings a year. Will choose a time-frame that works for most members before the field season and after the big snow.

Thank you everyone for making it out to today's USCA meeting. If you have any comments, concerns, or ideas on how to improve this meeting, please contact David at: david_stilwell@fws.gov (note underscore between first and last name).

Meeting adjourned at 4:00 pm.